

AMENDMENT TO THE CLAIMS

1. to 2. (Canceled)

3. (Currently Amended) A data processing apparatus which can perform data communication with various devices connected on a predetermined communication medium, comprising:

first indication means for indicating one or more ~~an~~ arbitrary combinations ~~combination of the icons for the respective~~ functions of plural peripheral devices on the predetermined communication medium displayed on a ~~the~~ display unit; and

first judgment means for judging effectiveness of an arbitrary combination ~~function~~ of functions of two or more of the plural peripheral devices indicated by said first indication means,

wherein, when it is judged by said first judgment means that the arbitrary combination ~~function~~ of functions of the two or more peripheral devices provides ~~[[is]]~~ effective functionality, a ~~said~~ virtual system configuration display means ~~temporarily~~ changes a display status of the icon for each function in the arbitrary combination indicated by said first indication means different from display statuses of other icons while the combination ~~function is~~ of functions ~~is~~ being executed.

4. (Currently Amended) An apparatus according to Claim ~~[[1]]~~ 3, further comprising:

~~first indication means for indicating an arbitrary combination of the icons~~

for the respective functions displayed on the display unit;

wherein said virtual system configuration display means displays a path ~~connecting to connect shortest~~ the icons for the ~~respective~~ functions indicated by said first indication means on the virtual network path ~~using a display in a displaying~~ form different from a ~~display displaying~~ form of other paths.

5. (Currently Amended) An apparatus according to Claim 4, wherein, when said virtual system configuration display means displays the path ~~connecting to connect shortest~~ the icons for the ~~respective~~ functions indicated by said first indication means on the virtual network path ~~using the display in the displaying~~ form different from that of other paths, said virtual system configuration display means adds a specific emphasis pattern to the indicated icons to emphasize and display these icons.

6. (Currently Amended) An apparatus according to Claim ~~[[1]]~~ 3, wherein the various devices include at least any of a printer, a fax machine, a digital copying machine, a scanner, a digital camera and a modem.

7. (Currently Amended) An apparatus according to Claim ~~[[1]]~~ 3, wherein said data processing apparatus can communicate with ~~another~~ other data processing apparatus functioning as a management server.

8. (Original) An apparatus according to Claim 7, wherein said other

data processing apparatus updatably stores resources for displaying the resource information structure acquired from the various device and the status of each device.

9. to 11. (Canceled)

12. (Previously Presented) An apparatus according to Claim 3, further comprising:

said first judgment means for further judging whether or not each device is shared on a network and a driver has been installed in said data processing apparatus,

wherein a display displaying form of the icon corresponding to the device for ~~of~~ which a driver is not installed in said data processing apparatus is made different from a display displaying form of an ~~the~~ icon of another device in accordance with the judged result of said first judgment means.

13. (Original) An apparatus according to Claim 12, wherein the icon corresponding to the device of which driver is not installed in said data processing apparatus is displayed in gray.

14. to 15. (Canceled)

16. (Currently Amended) A data processing ~~apparatus~~ method which can perform data communication with various devices connected on a predetermined

communication medium, comprising:

a first indication step of indicating one or more ~~an~~ arbitrary combinations combination of the icons for the ~~respective~~ functions of plural peripheral devices on the predetermined communication medium displayed on ~~a~~ the display unit; and

a first judgment step of judging effectiveness of an arbitrary combination ~~function~~ of functions of two or more of plural peripheral devices indicated in said first indication step,

wherein, when it is judged in said first judgment step that the arbitrary combination ~~function~~ of functions of the two or more peripheral devices provides ~~[[is]]~~ effective functionality, ~~a~~ said virtual system configuration display step temporarily changes a display status of the icon for each function in the arbitrary combination indicated in said first indication step different from display statuses of other icons while the combination ~~function is~~ of functions is being executed.

17. (Currently Amended) A method according to Claim ~~[[14]]~~ 16,
~~further comprising:~~

~~a first indication step of indicating an arbitrary combination of the icons for the respective functions displayed on the display unit;~~

wherein said virtual system configuration display step displays a path connecting to connect shortest the icons for the ~~respective~~ functions indicated in said first indication step on the virtual network path using a display ~~in a displaying~~ form different from a display ~~displaying~~ form of other paths.

18. (Currently Amended) A method according to Claim 17, wherein, when said virtual system configuration display step displays the path ~~connecting to connect~~ shortest the icons for the ~~respective~~ functions indicated in said first indication step on the virtual network path ~~using the display in the displaying~~ form different from that of other paths, said virtual system configuration display step adds a specific emphasis pattern to the indicated icons to emphasize and display these icons.

19. (Currently Amended) A method according to Claim 16, further comprising a judgment step of judging whether or not each device is shared on a network and a driver has been installed in said data processing apparatus,

wherein a ~~display displaying~~ form of the icon corresponding to the device ~~for~~ of which a driver is not installed in said data processing apparatus is made different from a ~~display displaying~~ form of ~~an~~ the icon of another device in accordance with the judged result in said judgment step.

20. (Original) A method according to Claim 19, wherein the icon corresponding to the device of which driver is not installed in said data processing apparatus is displayed in gray.

21. to 22. (Canceled)

23. (Currently Amended) A storage medium which stores a computer-

readable program to control a data processing apparatus which can perform data communication with various devices connected on a predetermined communication medium, said program comprising:

a first indication step of indicating an arbitrary combination of the icons for the respective plural of functions of peripheral devices on the predetermined communication medium displayed on a ~~the~~ display unit; and

a first judgment step of judging effectiveness of an arbitrary combination ~~function~~ functions of each of plural peripheral devices indicated in said first indication step,

wherein, when it is judged in said first judgment step that the combination of function of plural peripheral devices ~~[[is]]~~ provides effective function, a ~~said~~ virtual system configuration display step ~~temporarily~~ changes a display status of the icon for each function indicated in said first indication step from display statuses of other icons while the combination ~~function is~~ functions are being executed.

24. (Currently Amended) A storage medium according to Claim ~~[[21]]~~ 23, wherein said program further comprises:

~~a first indication step of indicating an arbitrary combination of the icons for the respective functions displayed on the display unit;~~

wherein said virtual system configuration display step displays a path connecting to connect shortest the icons for the ~~respective~~ functions indicated in said first indication step on the virtual network path using a display in a displaying form different

from a display ~~displaying~~ form of other paths.

25. (Currently Amended) A storage medium according to Claim 23, wherein, when said virtual system configuration display step displays the path connecting ~~to connect shortest~~ the icons for the ~~respective~~ functions indicated in said first indication step on the virtual network path using a display ~~in the displaying~~ form different from that of other paths, said virtual system configuration display step adds a specific emphasis pattern to the indicated icons to emphasize and display these icons.

26. (Currently Amended) A storage medium according to Claim ~~[[21]]~~ 23, wherein said program further comprises a judgment step of judging whether or not each device is shared on a network and a driver has been installed in said data processing apparatus, and

wherein a display ~~displaying~~ form of the icon corresponding to the device ~~for~~ of which a driver is not installed in said data processing apparatus is made different from a display ~~displaying~~ form of an ~~the~~ icon of another device in accordance with the judged result in said judgment step.

27. (Original) A storage medium according to Claim 26, wherein the icon corresponding to the device of which driver is not installed in said data processing apparatus is displayed in gray.

28. (Currently Amended) A data processing apparatus which can perform data communication with plural devices including a printer and scanner connectable with a data communication path, comprising:

display control means for displaying icons visually representing appearances of the devices connected on the data communication path, on a display unit,

wherein said display control means displays, on the display unit, an image representing the data communication path together with the plural icons respectively corresponding to the plural devices, and

said display control means disposes and displays the icons nearby the image representing the data communication path according to a connection status of the data communication path and the devices; and

first indication means for indicating one or more arbitrary combinations of functions of plural devices for which icons are displayed on the display unit,

wherein a combination of the icons corresponding to the scanner and the printer is indicated by said first indication means, the scanner and the printer are cooperated with each other through the data communication path so as to execute functionality equivalent to functionality executable by a digital copying machine.

29. (Original) An apparatus according to Claim 28, wherein each of the plural devices has at least an independent function, and said display control means makes a displaying form of the icon different for each function.

30. (Currently Amended) An apparatus according to Claim 29, wherein, even if the plural icons respectively represent the devices having an identical function, said display control means makes the displaying forms of these icons different from others according to different makers. ~~different~~.

31. (Original) An apparatus according to Claim 29, wherein the plural devices include a scanner, a printer and a digital copying machine, and
said display control unit displays the icon visually representing the appearance of the scanner, the icon visually representing the appearance of the printer, and the icon visually representing the appearance of the digital copying machine on the display unit according as these devices are connected on the data communication path.

32. (Original) An apparatus according to Claim 31, wherein the plural devices include a fax machine, a digital camera and a modem, and
said display control unit displays the icon visually representing the appearance of the fax machine, the icon visually representing the appearance of the digital camera, and the icon visually representing the appearance of the modem on the display unit according as these devices are connected on the data communication path.

33. (Canceled)

34. (Currently Amended) An apparatus according to Claim 29, further

comprising:

~~first indication means for indicating an arbitrary combination of the icons from among the plural icons displayed on the display unit;~~

judgment means for judging whether or not an arbitrary the combination indicated by said first indication means is appropriate; and

control means for controlling, ~~cooperating~~, according to the judged result of said judgment means, each of the devices represented by the icons of the arbitrary combination indicated by said first indication means to cooperate with others of the devices through the data communication path so as to execute the ~~an~~ arbitrary combination function executable by the devices represented by the icons of the arbitrary combination.

35. (Currently Amended) An apparatus according to Claim 34, wherein said display control means temporarily makes the display ~~displaying~~ form of the icons of the arbitrary combination indicated by said first indication means different from the display ~~displaying~~ form of the icons representing other devices, ~~according~~ as the combination of functions ~~function~~ is executed, ~~by using the arbitrary combination function.~~

36. (Currently Amended) An apparatus according to Claim 35, wherein said display control means displays a specific emphasis pattern nearby the icon of the arbitrary combination of functions indicated by said first indication means.

37. (Currently Amended) An apparatus according to Claim 34, wherein,

according as the combination of functions ~~function~~ is executed by using the devices represented by the icons of the arbitrary combination, said display control means makes the display ~~displaying~~ form of an image corresponding to a path connecting these devices with others on the image representing the data communication path different from the display ~~displaying~~ form of an image corresponding to other path.

38. (Currently Amended) An apparatus according to Claim 34, wherein, when the combination of functions ~~according as the combination~~ function is executed by using the devices represented by the icons corresponding to ~~of~~ the arbitrary combination, said display control means temporarily makes the display ~~displaying~~ form of the icon corresponding to the ~~arbitrary~~ device indicated by said first indication means different from the display ~~displaying~~ form of the icon corresponding to another ~~other~~ device, and makes the display ~~displaying~~ form of an image corresponding to a path connecting these devices with others on the image representing the data communication path different from the display ~~displaying~~ form of an image corresponding to another ~~other~~ path.

39. (Currently Amended) An apparatus according to Claim 28, wherein, in a case that there is a ~~according as the~~ device for ~~of~~ which a driver is not installed in said data processing apparatus is connected on the data communication path, said display control means makes a display ~~displaying~~ form of the icon corresponding to the device for ~~of~~ which a driver is not installed different from a display ~~displaying~~ form of the icon of another device.

40. (Original) An apparatus according to Claim 39, wherein said display control means displays in gray the icon corresponding to the device of which driver is not installed.

41. (Original) An apparatus according to Claim 28, further comprising:
acquisition means for acquiring data concerning an operation condition output by the device through the data communication path,
wherein said display control means displays the data concerning the operation condition nearby the icon corresponding to the device of a data output source acquired by said acquisition means.

42. (Currently Amended) An apparatus according to Claim 28, wherein, in a case that a ~~according as the~~ device capable of inputting or outputting a color image is connected on the data communication path, said display control means displays a mark indicating such a fact nearby the icon corresponding to the device capable of inputting or outputting the color image.

43. (Currently Amended) An apparatus according to Claim 28, wherein, in a case that there is a device for which a ~~according as the device of which~~ driver has been installed in said data processing apparatus but which can not be used is connected on the data communication path, said display control means displays a mark indicating such a fact nearby the icon corresponding to the unusable device.

44. (Currently Amended) A data processing method for a data processing apparatus which can perform data communication with plural devices including a printer and scanner connectable with a data communication path, said method comprising:

a display control step of displaying icons visually representing appearances of the devices connected on the data communication path, on a display unit,

wherein said display control step displays, on the display unit, an image representing the data communication path together with the plural icons respectively corresponding to the plural devices, and

said display control step disposes and displays the icons nearby the image representing the data communication path along the according to a connection status of the data communication path and the devices; and

first indication means for indicating an arbitrary combination of the icons from among the plural icons displayed on the display unit,

wherein a combination of the icons corresponding to the scanner and the printer is indicated by said first indication means, the scanner and the printer are cooperated with each other through the data communication path so as to execute functionality equivalent to the functionality executable by a digital copying machine.

45. (Currently Amended) A storage medium which stores a program to cause a data processing apparatus which can perform data communication with plural

devices including a printer and scanner connectable with a data communication path, to execute following step:

a display control step of displaying icons visually representing appearances of the devices connected on the data communication path, on a display unit,

wherein said display control step displays, on the display unit, an image representing the data communication path together with the plural icons respectively corresponding to the plural devices, and

said display control step disposes and displays the icons nearby the image representing the data communication path according to a connection status of the data communication path and the devices; and

first indication means for indicating an arbitrary combination of the icons from among the plural icons displayed on the display unit,

wherein a combination of the icons corresponding to the scanner and the printer is indicated by said first indication means, the scanner and the printer are cooperated with each other through the data communication path so as to execute functionality equivalent to the functionality executable by a digital copying machine.

46 to 74. (Cancelled)